

jungle on the borders of a nullah overgrown with high grass, the party in search of the tigress started her, when she commenced the attack; the horsemen immediately returned the charge with a volley, which had no other effect than that of making her retreat. The size of this animal was such, that Major Wharton sent a man to camp to bring a reinforcement of a few men armed with carbines; but, before these could arrive, the tigress renewed the attack, and made some furious charges (which the riders avoided by their dexterity in turning their horses), and retreated into the bed of a nullah, where the horses could not follow her. In consequence of this, the pistols were given into the hands of the troopers on camels, who advanced boldly into the nullah. The tigress, grown desperate, was making a most furious spring at one of the troopers, when he, with great steadiness, fired his pistol just as she had sprung, hit her in the head, and brought her to the ground. On measuring her, she was found to be nine feet four inches.

It is unusual to hunt tigers with camels and horses; and although the latter went forward with great boldness, yet they were surpassed by the former, which, I think, from what I have seen, are preferable in this respect to elephants.'

GUDUR,

NELLORE DISTRICT,

September 15, 1954.

K. M. KIRKPATRICK

10. INTELLIGENCE OF THE INDIAN ELEPHANT

The intelligence displayed by elephants has been described in an article by Mr. Robert Foran which appeared in the *Illustrated Weekly of India* of 28th June, 1953. When the author wrote that article, which he has also illustrated with a number of photographs of the African elephant, he obviously had in mind the animal from Africa and not the Indian. Having been almost continuously associated with the Indian elephant (*Elephas maximus indicus*) for nearly a quarter of a century and also having assisted in the capture and taming of a few hundred elephants in several *khedda* operations held at Kakankote and Budipadaga, names which are famous in this connection in India, I have to state from my experience that the high degree of intelligence claimed for the African elephant by Mr. Foran does not apply, except in a meagre measure, to the Indian elephant, at least not to the animal found in the extensive forests of the Deccan tableland. It is true that a tame Indian elephant can be taught to do some extraordinary feats requiring a high degree of skill—as for example, balancing its huge body on a rolling cylinder, converging its four legs on the top of an inverted wooden tub too small to accommodate them all, picking up a minute object and handing it carefully to the trainer, and so on; or a working elephant deftly directing huge logs of floating timber in between the piers of bridges spanning flooded rivers, to avoid damage to the bridges and piers, etc., but in these instances it is the intelligence of man which comes into play and

makes use of the learning capacity of the animal; in other words, man utilises the animal's brawn for producing the desired results.

During each *khedda* drive scores of elephants are driven into the *khedda* enclosure *en masse*, and this is done time after time in the same place and almost under identical conditions. Such captures would have been almost impossible if the Indian elephant had been endowed with the discriminating intelligence ascribed to its African relative by Mr. Foran. I must say that it is the almost complete absence of reasoning power, or to put it in a crude way the stupidity displayed by most of these mighty animals which enables man to impound them almost like sheep in the *khedda* stockade and subsequently noose them with ropes one by one. True, there are rare instances in which an elephant has shown a certain amount of reasoning power which we may term intelligence in the widest sense of the term, but such instances are very few and far between. They are rare exceptions, not the rule.

The roping operation involves the slipping of a loose rope-noose up the trunk of the elephant and on to its neck. For doing this, a scope or so of elephants are first impounded in the roping ring-stockade and they are then roped one by one, in full view of the other animals awaiting their turn to be roped. But, the animals which are looking on all the time their companions are being noosed learn nothing from what they see, nor do they help in freeing their distressed friend who, after the ropes are on him, is forcibly dragged out of the roping ring and bewails his loss of freedom by heart-rending cries and pours forth a constant stream of tears from his tiny, winking eyes. In fact, a captive which is in the act of being roped rarely, if ever, lifts its head or attempts to push down the man who is roping it and who remains perched, often precariously, on the back of a *kumki* elephant. It would have been nearly impossible for the roping squad of *mahouts* to enter the roping ring and carry on their dangerous task had the wild elephants displayed the little intelligence required to use their trunk for pushing down the *mahouts* systematically from the backs of their *kumkies*. This never seems to occur to them; in ninety-nine cases out of a hundred the animals keep their heads bent and submit to the 'machinations' of the humans without any show of their enormous strength or the slightest streak of intelligence. True, they often make clumsy and ineffectual efforts to prevent the noose from being pulled up their long trunks, but this is done more out of animal instinct than from the consciousness that the rope is axing at their freedom.

The fact that in their wild state no two elephants behave exactly alike when they see a hunter shows the meagreness of their reasoning power; one may bolt on seeing the hunter, the next may charge him. The first animal runs away from danger while the second turns to bay; this is a universal reaction common to all animals and not confined only to the elephant.

The elephant recognises its *mahout* by smell, since the animal's winding (smelling) power is better developed than its sense of hearing or sight. This is true not only of the elephant but also of most domesticated animals.

The sense of comradeship is generally well developed in the case of all those animals which associate in herds. A distressed comrade is not normally abandoned to its fate by such animals. For example, on several occasions I have seen a bull bison (gaur) in a herd shot and brought down to the ground, when some of his companions have stood around their fallen comrade and attempted to lift him to his feet. They have had to be scared away by shots.

Animals are generally unable to assess the gravity of personal danger; it is more on account of this than through any sense of personal heroism that they return to free a comrade in distress. It is the human being that assesses the degree of danger to which the animals had been exposed and attributes the sense of heroism to them in his own measure. A sneaking hunter who worms his way through the forest undergrowth is never noticed by an elephant unless he is caught up-wind, when his smell gives him away, or unless he appears in full view of the animal at close range, in which case the animal either runs away from him or charges him outright.

As for the ability of the elephant to fashion steps against obstructing mud banks with the help of their fore feet and tusks, this is more the outcome of accumulated experience resulting from repeated efforts to climb an obstacle rather than from a reasoned-out plan. The accumulated experience of generations of elephants has now probably crystallized into an instinct. Its size and strength enable an elephant to cut the steps; for the other smaller animals this would be impossible. It is known, however, that while descending steep paths the elephant always keeps to the beaten track and never diverts from it even if there be an easier one within a stone's throw; this displays absolute want of reasoning power. I know of many an attempted 'river-drive' at Kakankote (Mysore State) having failed on account of this simple fact, namely, the elephant's refusal to budge from its accustomed route even if there be another in its neighbourhood which is a much easier and shorter one.

Most quadrupeds are excellent swimmers and the elephant can swim too. A new-born elephant, like most other new-born quadrupeds, cannot swim and has to be carried across deep water by the mother.

A full-grown elephant generally avoids falling into game pits not because of its reasoning power or intelligence, but more on account of the fact that it has the habit of constantly feeling with its trunk the ground on which it is about to tread. The trunk of the elephant can be compared to the stick of a blind person. At night, especially, the elephant with its weak power of sight has to depend more on feel and smell. The sense of touch has therefore been well developed. It is the calves that usually drop into the pits, but not infrequently half grown animals, and occasionally even full-grown tuskers too, drop in and are roped. Instances of attempts to rescue a fallen animal are by no means uncommon, but it is mostly the mothers or the foster mothers of the entrapped calves that return to rescue their young ones and even these are often easily scared away by firing a couple of blank shots. The mother returns to the rescue of her young one out of maternal instinct rather than through any feeling of comradeship.

The efficiency of the African elephant in 'road making' or 'dam-construction' has been commended by Mr. Foran, but I must say that their Indian counterparts are mostly untrained engineers; elephant paths frequently go up and down hill ridges, often missing the saddles in the neighbourhood. Quite often they make gradients of 45 degrees which could have been easily avoided by skirting a small neighbouring hillock; but the animals always follow a beaten path,—a path, whether it is good or bad, which has been worn smooth from use, but laid out for them from the accumulated experience and wisdom of generations of their roving forefathers. An elephant hitched to a timber log generally seeks the easiest gradient possible but in this, again, it is guided by the resistance offered by the log and not by the reasoning power of the animal. If, for example, the log is held up by any obstruction along the drag path, the elephant merely uses its brute force to overcome it and often snaps its drag-chain in the effort. It is never known to use its reasoning power for overcoming such obstacles in spite of the fact that it may have done this sort of work all its life.

The construction of dams by African elephants, as described by Mr. Foran, is almost incredible in the case of the South Indian elephant. Wild herds often spoil their only source of drinking water and are forced to leave the locality altogether in quest of water; let alone their ability to construct a water reservoir for themselves by carefully plugging the courses of mountain streams. The description of the sagacity used by the African elephants reminds one of the old Indian fable in which an elephant, which was refused its share of the daily plantain fruit by a tailor, is stated to have gone out to a neighbouring dirty pond, filled its trunk with muddy water, returned and syringed the water on the tailor. The elephant has to breathe and the proboscis is the nasal passage; how the elephant retained water in it all the time has not been questioned.

As regards the general health of the South Indian elephant, like its South African counterpart, it too is a healthy animal, though tame elephants sometimes fall an easy prey to the deadly anthrax. Like the African elephants too, they suffer from diarrhoea, and also intestinal worms against which they swallow large quantities of mud which is then ejected along with the worms. A daily bath is indispensable to the South Indian elephant and sometimes two baths are taken, each invariably accompanied by a toilet which consists of sprinkling dry or loose earth or blowing dust all over the body.

The elephant is able to make a quick end of its human victims because of its enormous physical power and large size compared to its victim. Once dashed against the ground or trampled upon the body of man, which is of the size of a mere toy compared to the elephant, is crushed and often reduced to pulp.

There are no two opinions about elephants being strictly vegetarian and even the accidental smell of blood in their diet is often disliked by them.

The Indian elephant does not cover the body of its human victim with leaves etc. and thus give it a burial of some sort as mentioned by Mr. Foran in connection with the African elephant. In every

single instance of manslaughter by elephants that I have had occasion to see, the animal had left the body of its victim on the ground and fully exposed to view. It is the habit of the carnivora, on the other hand, to secrete their meat against scavenging hyaenas and vultures by heaping up dry fallen leaves and twigs over it.

I am unable to say anything about the standard of intelligence of the African elephants because I have no knowledge of them in the wild state. But, from the meagre experience I have had with a pair of these animals in the Mysore zoo which used to be tethered sometimes in the forests of my forest division for grazing, and occasionally even for work, I can state that the African elephant, compared to the Indian, is wilder and more difficult to tame or train.

FOREST RESEARCH INSTITUTE,
NEW FOREST, DEHRA DUN,
September 4, 1953.

K. KADAMBI
Conservator of Forests

II. THE ABOMINABLE SNOWMAN

(With a photo)

The snowman has again been in the news for some time and it may be of interest to examine the facts and theories which have been put forth in recent years.

We believe that the only instance in which the narrator claims to have personally seen a creature, later reported as a Snowman, and written about it is N. A. Tombazi, F.R.G.S., who in his 'Account of a Photographic Expedition to the Southern Glaciers of Kangchenjunga in the Sikkim Himalaya' writes:—

'I was preparing my instruments and cameras for the start when my attention was attracted by shouts outside the grotto; soon afterwards, the Sirdar and two of the coolies hurried to the tent with the news that a man had been sighted in the valley below. I rushed out—forgetting even to put on one of my snowboots—and gazed searchingly in the direction in which the Sirdar was pointing.

'The intense glare and brightness of the snow prevented me from seeing anything for the first few seconds; but I soon spotted the "object" referred to, about two to three hundred yards away down the valley to the East of our camp. Unquestionably, the figure in outline was exactly like a human being, walking upright and stopping occasionally to uproot or pull at some dwarf rhododendron bushes. It showed up dark against the snow and, as far as I could make out, wore no clothes. Within the next minute or so it had moved into some thick scrub and was lost to view.

'Such a fleeting glimpse, unfortunately, did not allow me to set the telephoto-camera, or even to fix the object carefully with the binoculars; but, a couple of hours later, during the descent, I purposely made a detour so as to pass over the place where the "man" or "beast" had been seen. I examined the foot-prints which were clearly visible on the surface of the snow. They were very similar in shape to those of a man, but only six to seven inches long by four